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Editorial Department.

Middle Ear Disease and its Consequences.

In our next issue we will begin the publication of a valuable paper by Dr. A. E. Prince, of Springfield Ill., pertaining to diseases of the middle ear with complications and surgical treatment. Dr. Prince is one of the original workers in this field of special surgery, and in consequence his statements may be considered authoritative. This subject is one that needs to be presented more freely before the profession, for it is true that the inflammatory diseases of the ear are grossly neglected by the general practitioner, but largely through oversight rather than by neglect. This is due to the fact that suppurative diseases of the ear proceed insidiously and invade the mastoid cells, encroach upon the brain in fact, before recognition of the severity of the case is made. The chronic discharge from the ear so common in childhood is, as McEwen has declared, a constant menace to life. Because the disease (chronic purulent otitis media) as before stated, advances insidiously, often times without pain, until very extensive destruction of the middle ear and mastoid is made. From this region it invades the meninges and brain, and thus causes meningitis and brain ascess with all of their pos sible complications and death.

Robert Lewis, Jr. (Medical Record, March 15, 1902), says, "these cases ought not to occur. The simple fact of the occurrence of the disease generally means culpable neglect of an acute otitis media, for, if proper therapeutic measures are carried out in these primary inflammations, a secondary or chronic form of the disease will not follow. Of course," says he, "grave complications, such as mastoiditis, acute cerebral and cerebellar abscesses and septic sinus thrombosis may occur in the course of an acute inflammation of the middle ear, for the development of any of these complications is at times perfectly unavoidable, and may take place under the most careful and skilful treatment. When they develop, however, as a complication of the chronic form of purulent inflammation of the middle ear, their occurence can no longer be termed unavoidable. They should have been prevented." Lewis says, hypertrophy of the pharyngeal tonsil is responsible for the occurrence of middle ear disease. This mass should be removed whenever found, also hypertrophied faucial tonsils.

Again, if otitis media does occur in the presence of this growth, it causes trouble by reason of mechanical interference with drainage, and thus establishes favorable conditions for chronic inflammation.

It is important, therefore, says Lewis, to properly care for the pharyngeal and nasal cavities, especially of children, thus presenting the frequency of attacks of acute otitis media. Secondly, a case of acute otitis media should not be neglected, but should early have free drainage through membrana tympani, with the passages frequently cleansed. Absolute rest should be enforced, and the bodily health cared for, especially should the intestinal tract be kept freely open. If under such treatment, after a reasonable time (not more than four months at the longest) it is found that inflammation still persists, the case should be put in the hands of an expert, and not allowed to drift into a chronic condition, as it almost surely will if the criminally ignorant statement is made to the patient that "he will outgrow it in time." Finally, it should be made plain to the patient who is affected with a chronic discharge from the ear, that such a discharge points, in the majority of cases, to the existence of a diseased process in some part of the middle ear, and that the ultimate tissue of this process is oftentimes death. On the other hand, there has been accumulated, during the past decade, a mass of evidence which makes it no idle boast for the specialist to claim that nearly every one of these cases is curable—in some instances by skillful local measures, and in still larger number by a suitable surgical operation."

We present here the opinion of two authorities, Lewis and Prince, and from their statements conclude that it is every physician's duty to give close and constant care to cases of middle ear disease, and if beyond his ability to treat them, then it is his duty to put these cases in the hands of skilled operators. F.P. N.

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Christain Fenger.

Every young physician entering upon the practice of his profession should read biography, study biography, and thus learn of the great men in medicine, the principles that guided their lives, and the characteristics which made them great. There is more than genius which makes possible such achievements as are recorded in the life of such a man as Christian Fenger, who died March 7, 1902, at his home in Chicago. His genius was wholly in his ability to work with a well-defined purpose, and to make count every moment, every opportunity, and to record what he saw and did. His systematic habits, formed early and followed late, gave to him a fund of knowledge that could be used on demand. He claimed no distinction, but won it nevertheless upon such lines. In the death of Christian Fenger there is removed from the surgical world a man who held a unique place in it. He was an indefatigable seeker after truth—all lines of investigation were pursued to the end in his research; his knowledge of clinical pathology, morbid anatomy and keen diagnostic discrimination, together with a firm conservatism and wonderful logical analysis, gave to him the foremost place in surgery in the West, if not in the country. He was not brilliant in the sense of some operators; he was not rapid nor dashing in his surgical undertakings, but when he arrived at a decision that an operation was indicated, nothing

stood in his way; he was fearless, and worked wholly for the good of his patient.

Like most great men of science his life was simple, unostentatious and beautiful in its devotion to his profession. He was the true friend to the young man, the growing student who saw in Fenger the achievement of a life of earnest devotion, and sought to emulate his true scientific spirit. No one will occupy his place, but his life has been the incentive to others who are seeking to achieve and to take a part in the great scientific surgical world made so inviting by the life of that great scholar and surgeon, Dr. Christian Fenger.

The Recent Supreme Court Decision in Illinois as to What Constitutes the Practice of Medicine in that State.

The Illinois State Board of Health is to be congratulated on the successful outcome of their continued warfare on irregular practice, in the recent decision in their favor by the State Supreme Court. It is a just verdict, and one worthy of the great State of Illinois, which ever stood firm in its endeavors to elevate the practice of medicine. The time has passed when popular fads like osteopathy, mental healing, christian science, etc., can interfere permanently with the current of intellectual progress.

It is true, as Helmoltz has well said, that the true teacher "is able to discern the truth from the phraseology, which has only the appearance of truth, and so it is with the Supreme Court, which poses as the interpreter of truth—it discerns the truth from the phraseology of osteopathy, mental healing, etc., which has for its stock in trade "the appearance of truth."

The case before the Supreme Court was that of the People of the State of Illinois, (the use of the State Board of Health) vs. Joseph P. Gordon, to recover a penalty for practicing of medicine without a license, contrary to the provisions of the medical practice act of 1899. The suit was originally begun before a justice of the peace in Winnebago county, where there was a judgment for the defendant. It was carried to the Circuit Court, where a verdict for the defendant was again entered. The case was carried to the Appellate Court where this judgment was affirmed. But now in the Supreme Court the case finally reached judgment has been reversed and remanded. This has been a well-fought battle, and the Illinois State Board of Health is deserving of great credit for its persistence when defeat has been its reward in all previous contests.

In view of the weight which this decision is to have in future cases, and its value in supporting true scientific medicine, we take pleasure in presenting this opinion in full as delivered by Chief Justice Wilkins:

"In our view, the only question for decision here is, did the evidence offered upon the trial fairly tend to prove the defendant guilty, within, the proper construction of the act?

"It is contended by counsel for appellee that section 7 is unconstitutional, because the title is not broad enough to include it, and that the act is liable to the objection that it confers special privileges upon certain

classes. In answer to these contentions we only deem it necessary to cite the cases of Williams v. People, 121 Ill., 84, and People v. Blue Mountain Joe, 129 id., 370, in which these and other objections to the constitutionality of the law are fully discussed and the act sustained. It is true, these decisions were rendered under the acts of July 1, 1887; but neither of them is materially different from the present law, so far as the objections here made are concerned. It is clear, we think, from the several sections of this statute, that the State Board of Health is authorized to divide those who desire to practice medicine into two classes, that is, those who desire to practice medicine and surgery in all their branches, and those who desire to practice any other system or science of treating human ailments without the use of medicine or instruments. Section 7 defines what shall be regarded as practicing physicians, within the meaning of the act, as including both classes, and we are at a loss to perceive how it can be said that the defendant's own testimony does not tend to show that he did treat and operate on patients for physical ailments, within the meaning of that section. It is true, he says his treatment was a mental science; but that statement is completely refuted by his testimony as to what he did, and we think his evidence, as well as that of the witnesses sworn on behalf of the People, at least fairly tended to prove, if it did not fully establish, that he did not use magnetic treatment, as commonly understood. He said: 'I first make a diagnosis, then I remove the cause for that condition by working and freeing the nerve force; . . . I get as near the muscles as I can; if a person is fleshy it takes more force.' He also flexed, or, as one witness says, bent the limbs. In short, all the testimony tends to show that he practiced what is known as osteopathy—at least the treatment was of that nature.

"It is insisted by appellee that the act does not include persons who do not use drugs, medicines or instruments, and in support of this position he cites Smith v. Lane, 244 Hun., 632; State v. Liffring, 46 L. R., A. 634; Nelson v. State Board of Health (Ky.), 57 S. W. Rep., 501; State v. Mylod (R. I.), 40 Atl. Rep., 753. We have carefully examined these cases, and find that neither of them sustains the contention. The question decided in each of those cases was, whether persons giving treatment, as the defendant did in this case, as osteopaths and as christian scientists were prohibited by the statutes of those States from administering to the sick and suffering, and it was held they were not. In other words, those decisions simply construe the statutes of their own States, none of which undertake, as does our act, to define the practice of medicine as including all 'who shall treat or profess to treat, operate on or prescribe for any physical ailment or any physical injury to or deformity of another,' and none of the statutes construed in those cases undertook to classify physicians, as our statutes does. It is true, the court said in the Nelson case, speaking of the defendant as an osteopath: 'Appellant is in no proper sense a physician or surgeon. He does not practice medicine. He is rather on the plane of a trained nurse. If by kneading and manipulating the body he can give relief from suffering, we see no reason why he should not be paid for his labor, as other laborers. Services in knead-

ing and manipulating the body are no more the practice of medicine than services in bathing a patient to allay his fever or the inflammation of a wound. Appellant may not prescribe or administer medicine or perform surgery, but so long as he confines himself to osteopathy, kneading and manipulating the body without the use of medicine. or surgical appliances, he violates no law and appellee should not molest him.'

"We hardly think the large school of osteopathists, and those who believe in their method and system of treatment, would be willing to concede that such treatment is no more than that which a trained nurse might administer. While it may be truthfully said that it is not the practice of medicine in the common acceptation of the term, it cannot be claimed that it does not 'profess to treat, operate on or prescribe for any physical ailment or any physical injury to or deformity of another,' and certainly it cannot be insisted that such persons do not practice another 'system or science of treating human ailments without the use of medicine internally or externally.' Section 17 of the statute of Nebraska regulating the practice of medicine and surgery in that State provides: 'Any person shall be regarded as practicing medicine, within the meaning of this act, who shall operate on, profess to heal or prescribe for or otherwise treat any physical or mental ailment of another,' etc., and the Supreme Court of that State held in State v. Buswell, 58 S. W. Rep., 728, that the practice of treating patients for ailments by what is known as 'christian science' was a violation of that section.

"But it is contended that the defendant in this case is shown by the testimony to be exempt from the operation of the statute by the last clause of the proviso to section 7—that is, that he is a person 'who ministers to or treats the sick or suffering by mental or spiritual means, without the use of any drug or material remedy.' We are unable to see how, under his own evidence, this position can be maintained. It is true, he does not use 'drugs or other material remedy;' neither does he treat the sick or suffering by mental or spiritual means,' and therefore whether the word 'material' is to be construed as meaning other treatment similar to the use of drugs is wholly immaterial. Very clearly this provision means that those who pretend to relieve the ailments of others by mere mental or spiritual means shall not be considered within the act; but if the defendant, under the proof in this case, can bring himself within that exception, then every one who treats diseases without administering medicine, either externally or internally, can also be brought within the exception. Few, perhaps, if any, physicians attempt to treat the sick and suffering without appealing to the mental faculties, to a greater or less degree, in aid of the remedies they apply or prescribe; but that is not treating the sick by mental or spiritual means.

"We all agree that the objects and purposes of this and similar statutes are to protect the sick and suffering, and the community at large, against the ignorant and unlearned who hold themselves out as being possessed of peculiar skill in the treatment of disease; from holding themselves out to the world as physicians and surgeons without having acquired any knowledge whatever of the human system or the diseases and

ailments to which it is subject. Without some knowledge of the location and offices of the various nerves, muscles and joints, the manipulation of those parts and the flexing of the limbs cannot be intelligently, if, indeed, safely, practiced. Merely giving massage treatment or bathing a patient is very different from advertising one's business or calling to be that of a doctor or physician, and, as such, administering osteopathic treatment. The one properly falls within the profession of a trained nurse, while the other does not.

"We think the circuit court erred in instructing the jury to find for the defendant, and that the Appellate Court erred in affirming that judgment."

Judgment reversed and remanded.

THE ASSOCIATION OF MEDICAL OFFICERS OF THE ARMY AND NAVY OF THE CONFEDERACY will meet in the Judical room of the City Hall in Dallas, Texas, cornor of Akard and Commerce streets, on Tuesday, April 22, 1902, at 12 m.

MEDICAL SOCIETY OF THE MISSOURI VALLEY.—This association held its semi-annual meeting, at Lincoln, on March 20, with a large and representative attendance, Dr. Richard C. Moore, of Omaha, president, in the chair. Chicago was represented by Drs. Moyer, Findley and Coulter. Three sessions were held, and sixteen interesting papers read. The *Medical Herald* was again made official journal of the society. After the evening session, the members were invited to the banquet hall of the Lindell Hotel, where a sumptuous re[illegible]ited them. The next annual meeting will be held in Sioux City, Iowa, September 18, 1902.

Correspondence.

THE DECREASING BIRTH RATE.

208 Beacon St., Boston, February 26, 1902.

EDITOR MEDICAL FORTNIGHTLY:

Dear Doctor.—In your issue of January 25, T. A. H. calls attention to the unfortunate condition revealed by the census, the decreasing birth-rate, which seriously demands our attention, as it holds good for Eastern and for Western States—for old and for new communities, in this country, alike. I send you a paper on the subject by this mail, in which I refer, though casually, to my observation in St. Louis, which shows the same low rate of fecundity among the American population, as in Massachusetts and Michigan. You have referred in your comment to criminal abortion. I wish that you would emphasize the results of this prevalence of criminal practice, the injury to health, and the decrease of the native American population, which I have endeavored to show in my paper. Keep hammering away at it and the people will wake up, as in France, whose conditions are now improving somewhat.

Very truly, GEO. J. ENGELMAN.

OUR MONTHLY QUIZ.

Prizes Open to Fortnightly Subscribers.

TOPIC FOR APRIL.

3. Best arrangement of the sick room in the home.

TOPIC FOR MAY.

4. The treatment of typhoid fever.

Answers should reach this office not later than the 15th of the month. Questions for discussion in this department are announced once a month.

For the best and most practical answer to any one of these questions we will give a prize of $5.00. To the second best a subscription to the FORTNIGHTLY for the year. The answers must be short, no one answer to contain more than four hundred words. We shall publish the substance of such of the answers as seem most likely to prove interesting to our readers.

Only subscribers to the FORTNIGHTLY will be recognized as competing (although we shall be pleased to hear from others who have ideas to suggest), and all persons known to be engaged in medical journalism are disqualified. Prizes will not be awarded to the same person more than once each year. Every answer must be accompanied by the writer's full name and address.

CITY CULLINGS.

DR. CHARLES BLANK, one of the oldest practitioners of this city, died on March 9th, after an illness of some months. The doctor began practice here in 1852.

HOSPITAL SATURDAY AND SUNDAY COLLECTION FOR 1901.—The last collection of the Hospital Saturday and Sunday Association of this city amounted to $24,945; of this sum $23,499 has been distributed among the hospitals of this city.

JUDGE & DOLPH'S NEW STORE.—The opening of Judge & Dolph's new store, at 515 Olive street, gives St. Louis a drug emporium of an elegance previously unknown in this city. It would be difficult to criticize the altogether of the outfit, in every detail it is a harmony of convenience and beauty. The same can be said of the firms' method of introducing the store to their friends in the medical profession and drug trade; on the evening of the 15th inst. some 300 of us were most royally entertained by the firm, and the elaborateness of the entertainment was only equalled by the enthusiastic enjoyment of all present. We had "a feast of reason and a flow of soul," and more, the feast was one to be told of to our children's children. The only regret that we heard spoken was from the firm, and that was that the limited space made it necessary to limit their hospitality when their pleasure would have been to receive the entire medical profession. It certainly was good to be there, and we owe thanks to Messrs. Judge & Dolph and to Master of Ceremonies Davenport for an intensely enjoyable evening.

Fortnightlettes

THERE are now sixty-three vacancies in the medical department of the army, the largest number in the history of the corps. The next examination will be held in Washington, D. C., April 7.

THE GENEROSITY OF KING EDWARD VII.—An English exchange tells us that the King has generously sent a bounty of $15 to the mother of triplets, lately born in Liverpool. No doubt such generosity will induce many to strive for a like reward.

TRI-STATE MEDICAL SOCIETY.—This association will hold its annual meeting at Chicago, April 3 and 4, under the presidency of Dr. J. C. Murphy, of St. Louis. A large attendance is expected. Reduced rates via the Burlington Route.

ON TO SARATOGA.—Join the Missouri Valley Excursion to the A. M. A. at Saratoga Springs, June 10 to 13, and save money on your railway fare and hotel bill Address Dr. Chas. Wood Fassett, St. Joseph, Mo., or Dr. J. C. Waterman, Council Bluffs, Iowa.

ENLARGING STATE HOSPITALS.—Two wings to the main building at State Hospital for the Insane, No. 2, at St. Joseph, are to be erected, at a cost of $25,000, one of which will be used as an infirmary for women. State Hospital No. 3, at Nevada, is to have a new wing to the west of the present building, to cost also $25,000.

OUR LARGEST LEPER COLONY.—There are now 909 lepers and 164 healthy persons at the Molokai settlement in Hawaii according to a report just received from the quarantine officer. In the last ten years only ten clean residents have become lepers. The oldest patients on the islands arrived in 1874 and 1875. The recruits to the settlement each year during the last decade range from 132 in 1890 to 85 in 1900.

INTERESTING DAMAGE SUIT.—The St. Louis Transit Company is defendant in a $25,000 damage suit, which was called in the circuit court at Clayton. The suit is based on an allegation that the excitement during the street car strike two years ago unbalanced the mind of Conductor James McCauley, who is now an inmate of an asylum for the insane. The suit was instituted by his guardian, Louis Wheelock.

THE ENSWORTH MEDICAL COLLEGE held its twenty-third commencement exercises at Tootle's, on the evening of March 17, graduating a class of fourteen. Dr. Chas. G. Geiger delivered the address on the part of the faculty; Dr. W. G. Moore, of St. Louis, delivered an excellent address to the public, and Dr. T. H. Doyle conferred the degrees; Master of Ceremonies, Dr. P. I. Leonard.

GREATER ST. JOSEPH. This enterprising city, not content with leading the country in clearing house increase, insists upon taking first place as a health resort. According to the official mortality statistics, collected by the census bureau, St. Joseph is the healthiest city in the United States among cities having a population of above 100,000; its death rate in 1900 was but 9.1 per thousand. In spite of this seemingly discouraging condition of health, St. Joseph supports 175 physicians, some of whom ride in automobiles and wear silk hats.—*Medical Herald.*

Original Department.

PAPERS for the Original Department should be in hand one month in advance, and contributed to THE MEDICAL FORTNIGHTLY exclusively. A liberal number of extra copies will be furnished authors, and reprints may be obtained at reasonable rates, if request accompanies the manuscript. Engravings from photographs furnished free.

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The Classification of Cirrhosis of the Liver.

By Arthur R. Edwards, A. M., M. D.,

CHICAGO,

Professor of Principles and Practice of Medicine and Clinical Medicine, Northwestern University Medical School; Attending Physician to Cook County, Mercy, Wesley, St. Luke's Hospitals, etc.

Read at Symposium on Cirrhosis of the Liver before a joint meeting of the Chicago Medical Society and the Chicago Society for Internal Medicine, January 29, 1902.

A CLASSIFICATION of hepatic cirrhosis may be made upon an etiologic, pathologic, or clinic basis. Schematism and over-refinement is often observed in the classifications made, yet it is difficult to formulate a division to include all varieties without some contradictions, either pathologic or symptomatic. Accurate theoretic and pathologic differentiation is important with reference to the therapy, as in syphilitic cirrhosis, in malaria, gout, diabetes, dyspepsia, lead poisoning, or other kindred causes, and again in atrophic cirrhosis in the relief of which surgery now plays a constantly increasing role.

(I) Important as is the recognition of the *etiologic factor*, clinic confusions arise, if classifications be made on this basis alone. Thus, for example, alcohol or tuberculosis may produce the fatty cirrhosis, or an atrophic cirrhosis may result from several causes, as alcoholism, syphilis and malaria.

Chauffard, in Charcot's Traite de Medicine, gives the following excellent anatomic and etiologic classification:

(I).—VASCULAR CIRRHOSIS.

(a) toxic (1) by extrinsic poisons.
(2) by intrinsic poisons.

(b) infective (1) direct microbic infection.
(2) indirect microbic toxic infection.
(c) dystrophic (1) arterio-sclerotic.
(2) passive congestion.

(II).—BILIARY CIRRHOSIS.

(a) by biliary retention.
(b) by radicular angiocholitis.

(III).—CAPSULAR CIRRHOSIS.

(a) by chronic localized perihepatitis.
(b) by chronic generalized peritonitis.

(The letters indicate the etiologic, and the Roman numerals the pathologic classification.)

(II).—THE PATHOLOGIC CLASSIFICATION.

1. *Distribution of Connective Tissue.*—This point is the most confusing of any connected with the differential pathology.

Charcot drew such sharp lines between the different forms that, as Rosenstein has said, one would conclude that a glance through the microscope would readily differentiate them. Charcot described:

1. *Cirrhose d'origine biliare.*
2. *Cirrhose d'origine veineuse.*
3. *Cirrhose monocellulaire,* characterized by the presence of connective tissue between individual cells within the lobule, seen especially in hereditary syphilis.

The French school postulates the following differentia between the two types of cirrhosis; in the venous variety, the connective tissue and inflammation extend around several lobules, sending connective tissue processes late if at all, into the lobule, hence a peripylephlebitis; in the biliary type, the connective tissue begins *in* the lobule, around the smaller bile radicles, with increase in the biliary vessels, hence a primary angiocholitis or periangiocholitis. In the venous form, the connective tissue exerts compression upon the lobule *en masse*, hence called cirrhose multilobulaire s. annulaire; in biliary cirrhosis, the compression is *in* the lobule, hence denominated cirrhose insulaire s. monolobulaire. In the vulgar cirrhosis, the process is extralobular; in biliary it is extra- and intralobular. In the venous or portal type the liver is small, ascites is present, there is no icterus and the liver cells are degenerated; in the biliary form the liver is large, ascites and other expressions of stasis are absent, icterus is the cardinal symptom and the liver cells are intact—a pathognomonic criterion.

Rosenstein rejects Charcot's and Hanot's terms, "intra- and extralobular", "multi-and monolobular", and asserts that there is no cirrhosis in which there are not now some small lobules surrounded by connective tissue, and again many acini surrounded by connective tissue. Both distributions may occur in a single liver. In the annular and insular forms Rosenstein finds an actual histologic differential point, and the concentric

ensnaring of smaller or larger groups of lobules in cases of Laennec's cirrhosis are to him and Ackermann truly distinctive. In typical hypertrophic cirrhosis the connective tissue sends out processes into and around the lobules, now surrounding an entire lobule, now only certain cell groups. Rosenstein, Kelsch, and Wannebroecq certainly overdraw the situation in saying that nearly all cirrhoses are mixed types (Type mixte, of Dieulafoy 20 and Guiter 21. See also references, 22, 23, 24,). Orth (25) refuses to divide cirrhosis into different types upon the distribution of connective tissue in regard to the lobule. When said tissue seems to surround lobules, the appearance is usually accidental. The same liver may show multilobular isles, large and small monolobular isles. Regarding the relation between parenchyma and interstitium, the same specimen may show here a sharp distinction and elsewhere the connective tissue running into the lobules Orth regards all cirrhoses as essentially the same process. Hamilton also thinks Charcot's and Gombault's views exteme.

Brieger (26) and Sabourin (27) affirm that the connective tissue begins in the hepatic vein zone. French authors find the connective tissue around the bile vessels, the veins being involved later and to a less extent. Hamilton says the secondary connective tissue bands in the lobule are more numerous in biliary than in atrophic cirrhosis.

(2) *The Bile Ducts.*—In general, the French authors describe a hyperplasia of the biliary passages in biliary cirrhosis. Brieger finds in every circumscript connective tissue formation in the liver an increase in the bile vessels in tuberculosis, carcinoma, adenoma, gregarinae, distomata, and even in corset liver. Rosenstein states that he has found them (perhaps by accident) more frequently in atrophic than in biliary cirrhosis and cannot, therefore, consider them pathognomonic of biliary cirrhosis; also that they sustain no causal relation to icterus. The ducts are described as filled with degenerated and desquamated epithelium and less frequently with pigment masses. Rosenstein affirms the existence of this condition in the hypertrophic cirrhosis without icterus. Ackermaun (28) thinks the new formed bile vessels communicate with the smallest biliary vessels on the one hand, and with the main duct on the other, and gives as proof the results of artificial phosphorus cirrhosis. Orth considers the canal system as due, chiefly at least, to atrophic liver cells arranged in rows, although he admits they may in part be neoplastic. They can be injected from the biliary system, and are absent in no type of cirrhosis. (Also the view of Kelsch, Kiener, Sabourin.)

Friedlander (29) was the first to discover this reversion of atrophic liver cells to their embryonal duct-like condition. The ducts disappear where the connective tissue is densest. According to Price (30) the ducts are of two kinds: 1, true bile ducts; 2, duct-like structures continuous with and imbedded in large tracts of fibro-nucleated tissue, being transformed into fibrous tissue. Small nodules on the surface are occasionally due to biliary polyadenomata (31). Ziegler describes a bile vessel proliferation in all cirrhoses.

In biliary cirrhosis proper, the prime and initial lesion is an ascending infection from the intestines which induces by its moderate yet con-

stant irritation an interlobar desquamative obliterative angiocholitis followed by hypertrophy of the liver cells, polycholia, and connective tissue formation.

(3) *Character of the new-formed Connective tissue.*—Ackermann calls attention to the fact that the new-formed connective tissue in biliary cirrhosis remains uncontracted, hence the names elephantiasis hepatis (Eichorst) and L'hypermegalie (Schachmann.) In atrophic cirrhosis it is fibrous; in hypertropic embryonal in character (Rosenstein.) Stadelmann remarks that the biliary cirrhotic liver never contracts. Orth admits that a biliary form exists, characterized by its clinical course and lack of atrophy, with the qualifying phrase that the future only can assign to biliary cirrhosis its exact status. Strumpell thinks the lack of contraction has been overestimated and that the organ would contract, were life protracted Hamilton describes the connective tissue bands as finer in hypertrophic than in atrophic cirhosis.

(4) *Condition of the Liver Cells.*—That the liver cells preserve their form and integrity is characteristic of biliary cirrhosis. They are at most only flattened at the periphery of the lobule and may disappear. Fatty infiltration and necrosis is said to be very rare. The nuclei are preserved. The cells are sometimes pigmented or atrophied, but often both cell and nucleus hypertrophy and divide. In Laennec's form the cells are often degenerated, very frequently fatty, now in the center, now in the periphery of the lobule. Hamilton says fatty degeneration is rare even in Laennec's cirrhosis, while fatty infiltration and hypertrophy occur.

According to Schachmann, Hanot's cirrhosis is distinguished even from biliary obstructive cirrhosis by the hypertrophy of the liver cells whose cell activity is increased (polycholia, diabete biliare).

(5) *Condition of the Blood Vessels.*—The interlobular blood vessels in the portal cirrhosis are diseased, while free in the biliary type (Rosenstein). The integrity of the hepatic or sublobular system is, according to Jaccoud (32) quite exceptional.

Ackermann distinguishes an atrophic cirrhosis (Laennec's) in which the cells die first, and are replaced by connective tissue. According to him, Laennec's cirrhosis and one variety of large cirrhotic liver are the same, for in certain livers some parts are atrophic and others again are hypertrophic. Ackermann admits the identity of the French hypertrophic variety, which has, he states, nothing in common with the atrophic cirrhosis except the connective tissue proliferation. It is apparently a primary connective tissue hypertropy with consequent atrophy of the liver cells, a hypertrophy occurring *around* the interacinous blood vessels, *never* leading to characteristic granulations, producing *moderate, or no stasis, i. e., scanty ascites and insignificant* splenic tumor and occuring also in horses, fowls, and cattle, while the atrophic is seen in man only. The difference between this form and Charcot's description is obvious.

(III). THE CLINIC CLASSIFICATION.—DEFINITION OF TERM "HYPERTROPHIC."

Hamilton takes exception to the term "hypertrophy," arguing that an enlarged liver may be very atrophic. Liebermeister considers that the terms "biliary" and "hypertrophic" are not identical, nor are venous and atrophic cirrhoses one. The portal vein form usually shrinks and the biliary form usually enlarges, but exceptions occur, as 1, portal vein forms remaining large till death; or 2, biliary types atrophying to a certain degree.

Most writers, e. g. Strumpell, regard "biliary" and "hypertrophic" as synonymous, and "venous" and "atophic" as the same. The hypertrophic, alcoholic cirrhosis of Hanot and Gilbert (18) is characterized by edges less sharp than normal; red or brown color; surface furrowed by uneven areas, varying in size, the unevenness being less than in the atrophic form; by granulations on the surface, by enlarged spleen, ascites, collateral circulation, etc. They assert there are many transitional forms between it and the atrophic alcoholic cirrhosis, so that great importance does not attach to size alone. Recovery occurs in this more than in any other form.

Laennec seems to have known but one type of cirrhosis. Hanot supported by Hayem, Cornil and Charcot insisted even more than did Todd upon the divorce of hypertrophic and atrophic cirrhoses. This separation of the two forms is the constant theme of the French school, but they do not seem concerned as to whether an enlarged liver may become small.

Cornil (19) was the first to discover in the hypertrophic form, a very rich network of bile vessels, and upon this Hanot based his clinical division of cirrhoses into, 1, the venous; and 2, the biliary. Litten and Mangelsdorf sought to show that biliary was but the first stage of the vulgar cirrhosis plus icterus. In Germany, the different cirrhoses are largely held to be mere variations of a single fundamental cirrhosis. Stadelmann 11 voices this opinion when he can not find a difference between the two forms for the following reasons: 1, there is a hypertrophic cirrhosis without icterus; 2, hypertrophic cirrhosis can later atrophy; 3, icterus can be very marked in Laennec's cirrhosis.

It seems to us that undue stress has been placed on size alone. An enlarged cirrhotic liver is by no means a hypertrophic cirrhosis.

A consideration of the possibillity that the vulgar hepatic cirrhosis may be preceded by hypertrophy, is pre-requsite. Todd 1 claims that there is never preliminary enlargement in Laennec's cirrhosis, and he was unable to find in literature a reliable instance of a hypertrophic passing into an atrophic cirrhosis. Stricker (Traube's clinic) observed livers shrink to half their former length in one month. Therefore subacute and acute hepatitis must be excluded. Rosenstein 2 and Labadie Lagrave 3 agree with Todd. Bright 4, Budd 5, Saunders and Frerichs 6 have said that contraction is occasionally antedated by a stage of enlargement. Murchison's 7 experience taught that in a considerable proportion of cases of cirrhosis, the liver is still very much enlarged, often from fat, after symptoms of portal obstruction have set in, and that patients often die in this stage with jaundice, hemorrhage and symptoms of blood poisoning. Leudet 8, from a pathologic standpoint comes to the conclusion that increase in

liver volume is not always an index of a recent lesion, of an acute process or a curable one. Murchison says it is questionable whether such livers would shrink if the patient lived longer, yet he states that increase and decrease in liver volume are probably different stages of the same process. Ollivier 9 believed that cirrhotic atrophy and cirrhotic hypertrophy were different states. Gilbert and Hanot believe in the preliminary enlargement of cirrhosis atrophica. Semmola and Klebs have studied the disease in its incipiency and found that the organ is firm, smooth and dark, with dilated portal radicles and periportal extravasation of round cells (Tissier). Kuessner 10, Rokitansky, Stadelmann 11, Litten 12, Schapiro, Mangelsdorf 14, Niemeyer 15, Stricker, Strumpell 16, Hamilton 17, Orth and Zeigler describe enlargement antecedent to atrophy. Bamberger 18 considers the decrease in size of an enlarged liver almost pathognomonic for atrophic cirrhosis. Rosenstein applies two tests: palpation of the liver's edge, continued clinical observation and necropsy—ascites, obstipation, or tympany render percussion most uncertain. With these criteria Rosenstein has never seen atrophy following hypertrophy.

Bile Stasis (*Icterus*).—Icterus dominates the clinical picture in the biliary variety. Most authorities admit that jaundice occurs more frequenly in biliary cirrhosis, although it may be absent (33). Howard found icterus in 70 per cent of hypertrophic, and 71 per cent in atrophic cirrhosis. Mandelsdorf found icterus in thirty-eight out of forty-nine cases of hypertrophic cirrhosis. Fogge (quoted by Charcot) found it in 25 per cent of atrophic cirrhosis (130 cases) and Rosenstein in 15 per cent. Icterus is absent in the cirrhose hypertrophique graisseuse (Sabourin). In Laennec's cirrhosis, it is incomplete, caused by compression of bile ducts by contracting connective tissue. Its frequency is variously given; seldom (Murchison, Oppolzer and Charcot), frequent (Bamberger, Leyden, Furbringer); necessary to the diagnosis (Leyden 34); slight in degree (Frerichs, Kuessner); coming on before severe symptoms (Bright). In hypertrophic biliary cirrhosis some consider the icterus due to polycholia (Rosenstein, Labadie Lagrave).

In atrophic cirrhosis, jaundice is a genuine complication, due to catarrh, glands, or a diffuse cirrhotic process (Andral, Clin. Med., II), yet few pass through the disease without a muddy yellow areola under the eyes. In hypertrophic cirrhosis the stools remain yellow, an important point (Furbringer, S. 121, ref. 2), yet sometimes they are acholic (Liebermeister 2) (?). Stadelmann believes many of Charcot's cases of biliary cirrhosis are only instances of retention icterus (from calculi, cicatrices, etc.). Rosenstein has observed catarrhal icterus lasting between one and two years, and has seen three cases of amyloid with icterus. In biliary cirrhosis the icterus varies directly with the fever curve and the size of the liver (Jaccoud).

Venous Stasis is absent or inconsiderable in biliary cirrhosis, being terminal or complicating. It is present in the mixed forms (biliary plus venous.) In advanced cases of atrophic cirrhosis, ascites is rarely absent, yet the patient may die before ascites develops, e. g., from hemorrhage, for

hemorrhage is dangerous when there is no ascites (Leyden.) An extensive though slowly developing collateral circulation may permanently relieve ascites. Ascites is no infallible sequence of atrophic cirrhosis (Lecorche, Hanot.) It may not disappear after hemorrhage (Fauvel), diarrhea (Linas), or carcinoma of the esophagus (Lecorche, Telamon.) It usually antedates edema of the legs, although anasarca may appear first, from 1, renal or cardiac complications; 2, compression of inferior vena cava; 3, perihepatitis involving cava; 4, cachexia; 5, thrombosis of iliac veins. Splenic tumor is seen in both forms. Atrophic cirrhosis is accompanied mechanical gastro-intestinal stasis with hypostatic hemorrhage. In biliary cirrhosis, hemorrhage in other situations, e. g. epistaxis, is more frequent. Furbringer has, however, observed in biliary cirrhosis, hemorrhagic gastritis and enteritis. The metabolic disturbances are the same in both forms, except that alimentary glycosuria is more frequent in the atrophic. In Laennec's type, constipation is the rule, in biliary, diarrhea. In both, dilatation of the right ventricle, leucocytosis, remittent or intermittent temperature occur. Tubercular peritonitis and granular kidneys are common in the atrophic form, while rare in the biliary. In biliary cirrhosis, albuminuria is infrequent while a high pulse rate and a terminal cholemic condition are usual.

All of us who have concerned ourselves with the classification of chronic nephritis, have felt the tendency and often the necessity of using the simple term "chronic nephritis," as for example, in cases with cardiac hypertrophy, arterio-sclerosis, low specific gravity, with polyuria speaking for an interstitial nephritis, while the large amount of albumin and great number and variety of casts speak for considerable parenchymatous nephritis.

Mixed cirrhosis, i. e., those with jaundice and stasis, are probably the cause of many clinicians diagnosticating "cirrhosis" and refusing to recognize the individual types. While mixed types of both nepritis and liver cirrhosis undoubtedly exist, nevertheless we would not wish to abandon the clear types of interstitial nephritis or parenchymatous nephritis nor those of atrophic or biliary cirrhosis of the liver.

Rosenstein suggests three classes of cirrhosis: 1, the genuine contracted liver; the cirrhosis of Laennec, an analogue of the genuine contracted kidney.

2. The hypertrophic icteric cirrhosis, an analogue of the parenchymatous nephritis.

3. The hypertrophic mixed form, in which hypertrophy and atrophy combine, an analogue of the secondarily contracted kidney.

Gilbert and Surmont 35 make the following classification:

(I) Biliary cirrhoses (a) Hanot's biliary hypertrophic cirrhosis.
(b) biliary cirrhosis due to obstruction of the bile vessels, with infection.
(c) Experimental biliary cirrhosis due to ligature of the bile vessels and infection of the same.

(d) biliary cirrhosis in the lower animals due to distomata, eggs of the mematodes, coccidium, etc.

(II) Vascular cirrhosis. (a) from exogenous poisons, e. g., alcohol, lead, phosphorus, etc.
(b) from autogenous intoxication, e. g., dyspepsia, gout, diabetes.
(c) infections of toxemias, tuberculosis, syphilis, malaria, exanthemata, etc.
(d) arteriosclerotic; passive congestion.

(III) Lymphatic cirrhoses. Capsular cirrhosis. Perihepatitis.

The classification we have suggested (reference 37) is attempted rather with a view of including the principal conflicting clinic and pathologic divisions than of offering an infallible or as strictly scientific arrangement of the varieties of cirrhosis of the liver, as Chauffard's.

- (I) Capsular cirrhosis
  - Also known as Glissonian or lymphatic cirrhosis.
  - (a) chronic perihepatitis; isolated or part of a chronic peritonitis.
  - (b) Portal vein syphilis (also vascular in origin).
- (II) Vascular cirrhosis
  - (a) Hepatic vein.
    1. Stasis cirrhosis (cyanotic induration).
    2. Cirrhosis in (3) or Laennec's cirrhosis, also, Brieger and Sabourin, known as bivenous cirrhosis.
  - (b) Portal vein.
    3. Laennec's cirrhosis or atrophic.
      - 1st stage. Pseudohypertrophy.
      - 2d stage, Atrophy.
    4. Hypertrophic alcoholic cirrhosis, like Laennec's, only remaining large; fatty cirrhosis.
    5. Cirrhosis from portal vein syphilis and from pylethrombosis.
  - (c) arterio-sclerotic cirrhosis.
- (III) Biliary cirrhosis
  - (a) Obstruction—"Retentions-icterus" and cirrhosis.
  - (b) Biliary or hypertrophic in French sense. Hanot's cirrhosis.
    1. With icterus.
    2. Without icterus.
- (IV) Mixed cirrhosis. Vascular (II) and Biliary (II) varieties combined.

103 State street.

THE SMALLPOX RECORD.—Smallpox in the United States as officially reported from December 28, 1901, to February 14, 1902, amounted to 15,754 cases with 347 deaths. The grand total for the same period in 1901 was 5,256 cases with 61 deaths. From December 28, 1901, to February 21, 1902, the smallpox cases amounted to 17,017 with 417 deaths against 7,392 cases with 79 deaths during the same period of 1901.

The Cervical Loop.

By Byron Robinson, B. S., M. D.
CHICAGO.

THE cervical loop extends from the distal arterio-ureteral crossing to the level of the os uteri internum.

This important land-mark of the internal portion of the pelvic floor segment of the utero-ovarian artery is what I term the cervical loop. The importance and utility of this cervical loop has been dignified and forced on us by modern gynecologic surgery. My dissections, vaginal hysterectomy and X-ray work has taught me its usefulness in avoiding damages to the ureter by ligature or clamp.

Old anatomists, as Bourgery and Jacobs (1840), Henle (1860), Hyrtl (1860), Pourier (1895), saw this cervical loop, but not being practical surgeons and hysterectomy not being in vogue, did not realize its great value in enabling the surgeon to avoid injuring the ureter through extending, unfolding by drawing the uterus in the vulva with traction forceps.

Dr. W. Nagel, the only eminent gynecologist I can find referring to it, simply says that he saw it in one of his cases as a loop of the arterina uterina median to the ureter. Physicians observed it simply as a loop of the uterine artery. I shall view the cervical loop as the most important of all arterial loops.

It exists in a spiral or tortuous state, which may be unfolded or extended for physiologic, anatomic or surgical purposes.

In vaginal hysterectomy the uterus should be drawn distalward, from the arterio-ureteral crossing, being allowed by the extent of the cervical loop, because the artery is much longer than the distance between the cervix and the distal arterio-ureteral crossing. This affords ample space to ligate the artery entirely free from the ureter and distal to it. However, what makes the distal arterio-ureteral crossing so adjustable laterally, which is the all-important factor in gynecological surgery is due to what I shall name the cervical loop of the uterine artery, or the loop of the internal portion of the pelvic floor segment of the utero-ovarian artery. The gynecologist may observe this loop while performing vaginal hysterectomy. A well injected uterus, especially if pregnant, will demonstrate a considerable sized arterial loop projecting distalward between the lateral cervical border and the ureter at the distal arterio-ureteral crossing. The length of this cervical loop enables the gynecologist to force the distal arterio-ureteral crossing lateralward, and to draw the uterus distalward, allowing ample space to ligate the uterine artery internal to the ureter. Practically the cervical loop is ligated distal to the ureter. The exaggerated length of the cervical loop is well observed during the use of the traction forceps on the uterus, and during its ligation with the index finger around it. The traction forceps forces the uterus distalward into the vulva. This unfolds, extends and draws the cervical loop into a straight line, but the distal arterio-ureteral crossing remains in situ, hence, again

FIG. 1.—A reproduction of an X-ray of a uterus pregnant three months, showing the distal arterio-ureteral crossing at 2. I injected the genitals in situ at the autopsy. The cut also shows the cervical loop (2, 3, 4). The pelvic floor segment, 1, 2, 3, 4; 4, 5, 6, uterine segment of the utero-ovarian artery; 6, 7, ramus ovarii; 6, 8, ramus oviductus; 13, origin of round ligament segment; 22, ramus cervicis; 23, rami corporis, and 24, rami fundi; 8, 12, 19, ureter; 25, vaginal arteries; 27, vesicle arteries; 31, ramus laterales oviductus; 32, internal pubic.

The X-ray was taken in Dr. Harry Pratt's electro-therapeutic laboratory.

FIG. 2.—A dissection of a pregnant uterus of three months. I injected the vessels and ureter with red lead and starch at the autopsy and dissected the parts carefully and slowly under alcohol. It shows well the cervical loop (2, 3, 4); 4, 5, 6, uterine segment; 8, ramus oviductus; 7, ramus ovarii; 13, 14, round ligament segment; 18, middle arterio-ureteral crossing; 2, distal arterio-ureteral crossing; 18, 19, ureter; 22, laterales cervicis; 23, rami laterales corporis; 24, rami laterales fundi; 25, 26, vaginal; 27, vesicle; 28, hypogastaic; 31, ramus laterales oviductus. This drawing represents practically exact anatomic data.

the excessive length the cervical loop of the internal portion of the pelvis floor segment of the utero-ovarian artery enables the gynecologist to avoid ligating or wounding the ureter. The length of the cervical loop is responsible for the safety from ligature or wounds of numerous ureters.

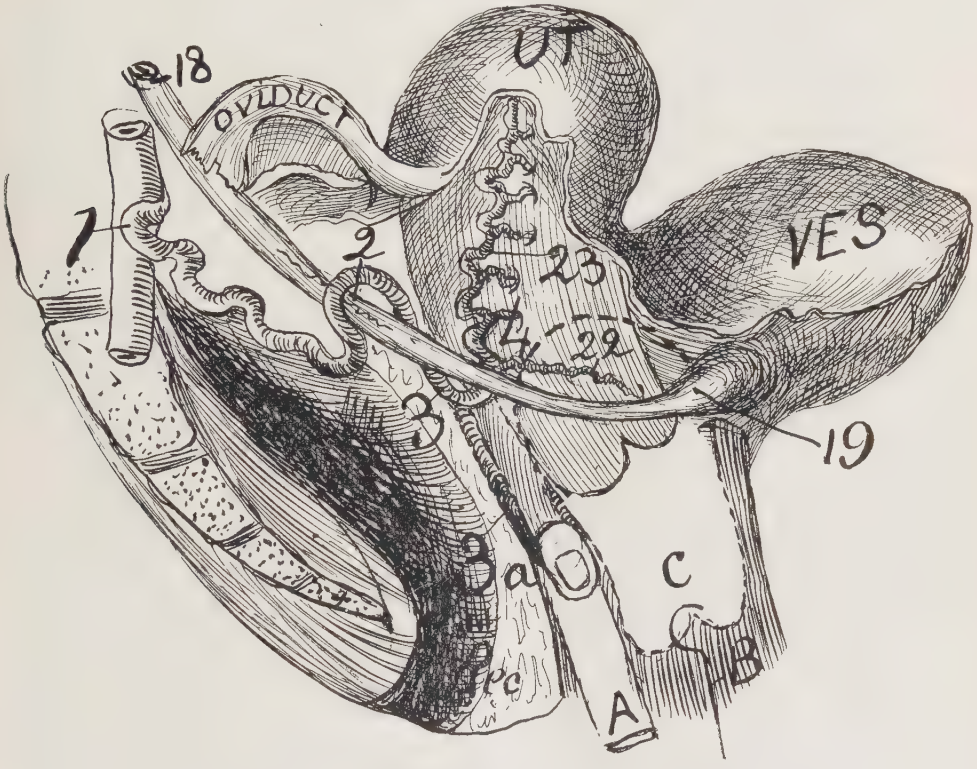

FIG. 3.—A CUT TO ILLUSTRATE THE LATERAL CERVICAL TRIANGLE (2, 4, 19) NORMALLY AND REVERSED DURING OPERATION.

The finger is around the cervical loop (2, 3, 4). The lateral cervical triangle is formed by 2, the distal arterio ureteral crossing; (4) the internal os and (19) the vesicle orifice of the ureter. The cervical loop (2, 3, 4) forms the proximal side, the ureter (2, 19) forms the distal side and the lateral border of the cervix and vagina (4 to 19) forms the median side of the lateral cervical triangle. 3a shows the cervical loop forming the distal instead of the proximal side of the cervical triangle, which is reversed during vaginal hysterectomy. 1, origin of the pelvic floor segment of the utero-ovarian artery; 2, the distal arterio-ureteral crossing (also the ureteral loop and distal arteria ureterica). 3, cervical loop; 4, internal os; 19, ureter penetrating bladder wall; 22, ramus cervicis; 23, rami corporis; UT, uterus; ves, bladder; A, finger hooked around the cervical loop 3a; B, traction forceps; c, the uterus drawn distalward in the vagina; Rec, rectum.

Little is found in medical literature on what I term the cervical loop of the uterine artery as practically the utero-ovarian artery itself has no literature, yet the cervical loop is plain in vaginal hysterectomy, in dissections, and in the exact non-personal equation of the X-ray. The descending arm of the cervical loop passes distalward along the internal and posterior border of the ureter while the ascending arm of the loop passes

proximalward along the lateral border of the vaginal fornix and cervix. During pregnancy the cervical loop doubles in length and size in the first three months

The cervical loop has marked age and functional relations.

In fetal life and childhood it is short, small and straight. At puberty it springs into active life, becoming flexed and large. At the menstrual period it enlarges, its pulse beat is vigorous and it elongates. In gestation it enormously develops, trebles in length and caliber, shows a mighty cervical loop—in the form of two spiral arms, which fill the space between the lateral cervical border and the ureter, and during the later part of gestation the cervical loop extends, unfolds proximalward, becoming almost a straight line. In senility it atrophies, shortens in length, decreases in caliber, thickens, calcifies in its walls, and again becomes almost straight in outline, losing its flexosity, as in childhood.

THE CERVICAL LOOP OR THE INTERNAL PORTION OF THE PELVIC FLOOR SEGMENT OF THE UTERO-OVARIAN ARTERY.

Extends from the distal arterio-ureteral crossing to the lateral border of the os uteri internum. It is an exceeding important vessel in gynecology, on account of its frequent ligation. It is the internal one-third of the pelvic floor segment. It is from one to one and one-half, or even two inches in length, slightly flexous in childhood, senility and the nullipara, but very flexous in the multipara and early gestation.

Its flexosity is increased in myoma or other uterine growths. It lies at or partly in the base of the ligamentum latum in an extensive bed of yielding, elastic, areolar tissue which facilitates extensive motion.

From the distal arterio-ureteral crossing the internal portion mounts proximalward over the lateral vaginal fornix, after which it departs slightly from the cervix and lateralward, and passes proximalward again to the distal portion of the corpus. In some cases it makes a distinct circular loop at the os uteri internum (see Figs.).

The abundant strong white connective tissue, fibres, bands and planes which surrounds the cervical loop, or the internal portion of the pelvic floor are so intimately interwoven about the spiral cords of the artery, that it will not easily elongate in a straight line without complete removal by dissection of the areolar tissue. The cervical loop, internal portion of the pelvic floor segment, sends off some very important branches. The cervical loop or horizontal, subligamentary portion, of the pelvic floor segment extends from the descending portion to the lateral border of the cervix. Practically the artery does not lie within the blades of the ligamentum latum. Here the horizontal portion of the plevic floor segment should not be termed the intra-ligamentary portion.

The cervical loop, the internal portion of the pelvic floor segment is the most mobile and free part of the utero-ovarian artery, besides being practically the chief surgical segment. Dissections and the X-ray shows that the cervical loop terminates about one-fifth to two-thirds of an inch from the lateral border of the os uteri internum in a vast bed of white cellular tissue (whence by cervical lacerations infective germs gain access,

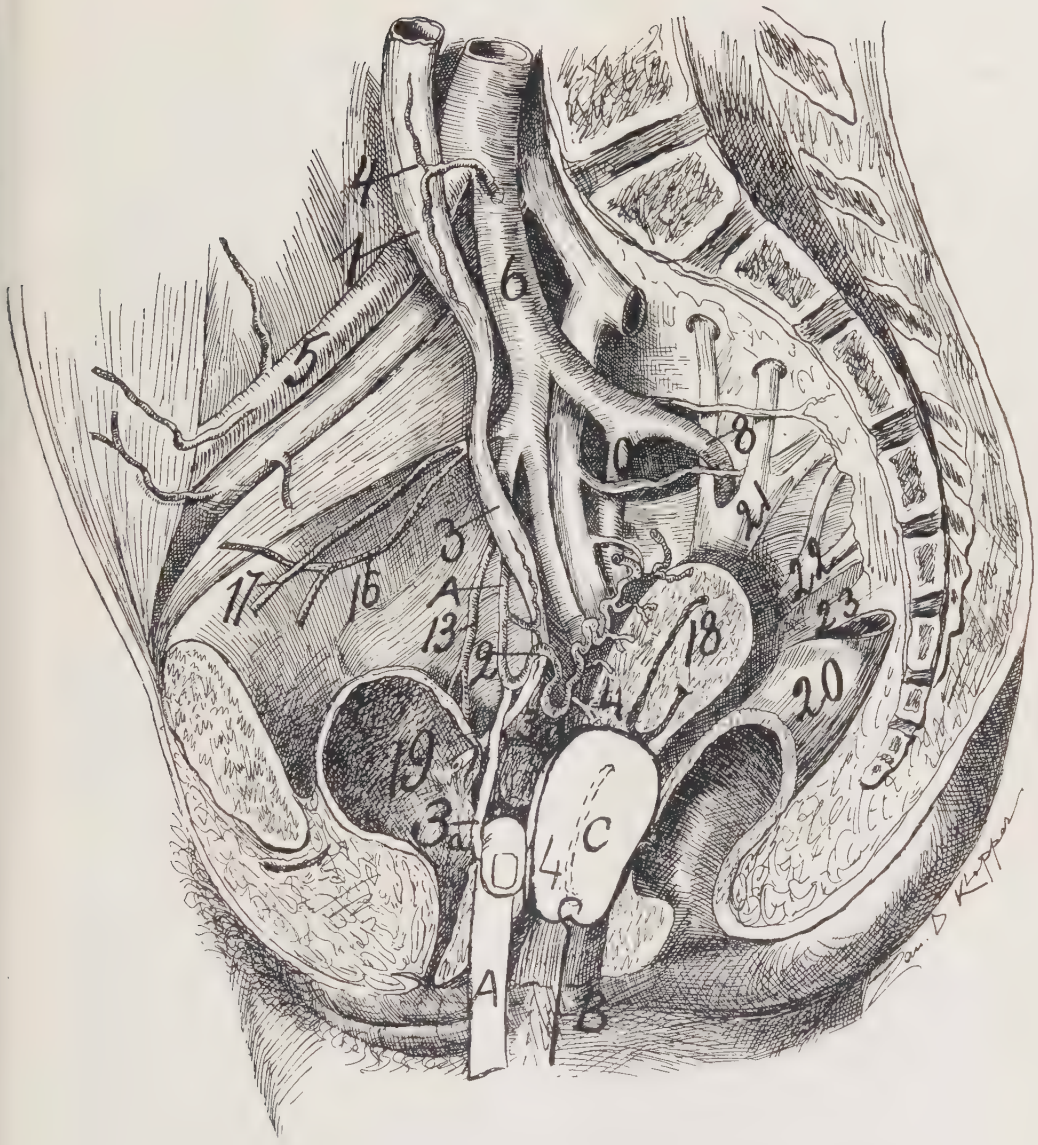

FIG. 4.—A CUT TO ILLUSTRATE THE CERVICAL LOOP AND LATERAL CERVICAL TRIANGLE DURING OPERATION.

The cervical loop (2, 3, 4). The lateral cervical triangle (2, 3, 4; 2, 19; 4, 19). The cervical (2, 3, 4) loop is drawn distalward by the finger (A) becoming, 3a, ready for ligation. c, is the uterus drawn distalward in the vagina by traction forceps. B, traction forcep. 1, Middle arterio ureteral crossing; 2, distal arterio-ureteral crossing; 3, cervical loop (also distal ureteral spindle); 4, internal os; 5, external, and 6 internal iliac; 8, superior gluteal; 10, inferior gluteal; 13, vesicle arteries; 16, hypogastric; 17, obturator; 18, uterus; 19, bladder at vesicle orifice; 20, rectum; 21, 22, 23, sacral plexus; A, pelvic floor segment of the utero-ovarian artery with its usual concavity dorsalward. Observe that the situation of the ureters and trigone remain the same during the operation.

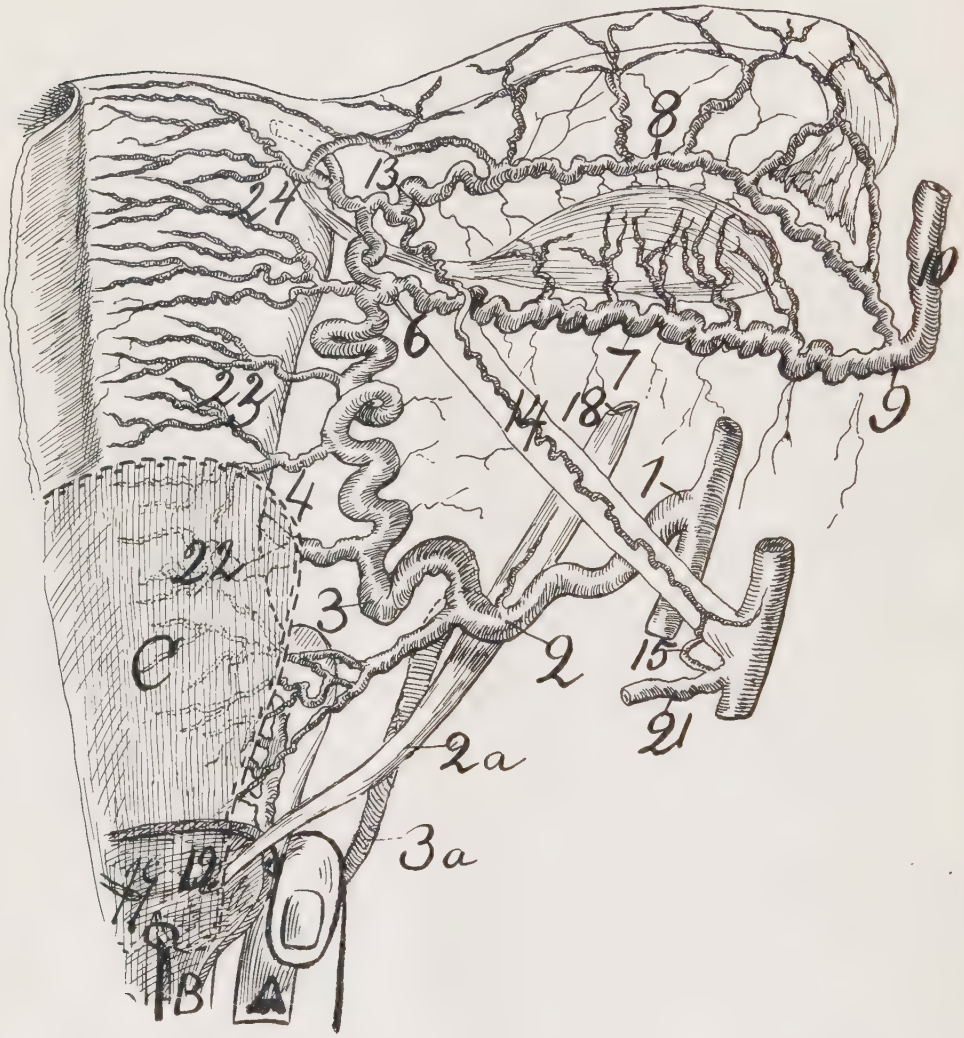

FIG. 5.—A CUT TO ILLUSTRATE THE CERVIAL LOOP (2, 3, 4) AND LATERAL CERVICAL TRIANGLE (2, 4, 19) NORMALLY AND DURING OPERATION REVERSED.

The cervical loop (2, 3, 4). The lateral cervical triangle (2, 19; 2, 3, 4; 4, 19). 1, origin of pelvic floor segment; 2, distal arteria ureteral crossing (also arterio-ureteral loop and distal arteria ureterica); 3, cervical loop; 4, internal os; 5, uterine segment; 6, middle bifurcation of the utero-ovarian artery; 7, ramus ovarii; 8, ramus oviductus; 9, junction of oviducal and ovarian segments (also proximal bifurcation of utero-ovarian artery); 10, ovarian segment; 19, vesicle orifice of ureter; 22, ramus cervicis; 23 ramus corporis; 24, rami fundi; 31, 32, 33, oviduct; A, finger hooked around the cervical loop; B, traction forceps drawing the left half of the uterus distalward into the vagina; B, traction forceps drawing the uterus C into vagina; 13, 14, 15, round ligament segment; 21, deep epigastric.

Observe that the ureters and trigone remain in situ, normally during the operation, especially after the uterus and bladder are separated from each other. This is easily noted in figure C.

producing cellulitis, and consequent vascular compromizations). The cervical loop crosses the lateral vaginal fornix by mounting proximally over it.

In some dissections and several X-rays I found a branch about the size of the distal arteria ureterica, springing from the pelvic floor segment immediately internal to the distal arterio-ureteral crossing. It is very large. especially (see Fig.) making extra-vascular arches with the oviducal segment. It supplies the mesometrium. Except the cervico-vaginal and the above branch the cervical loop lying between the distal arterio-ureteral crossing and the lateral cervical border sends off only very fine spiral

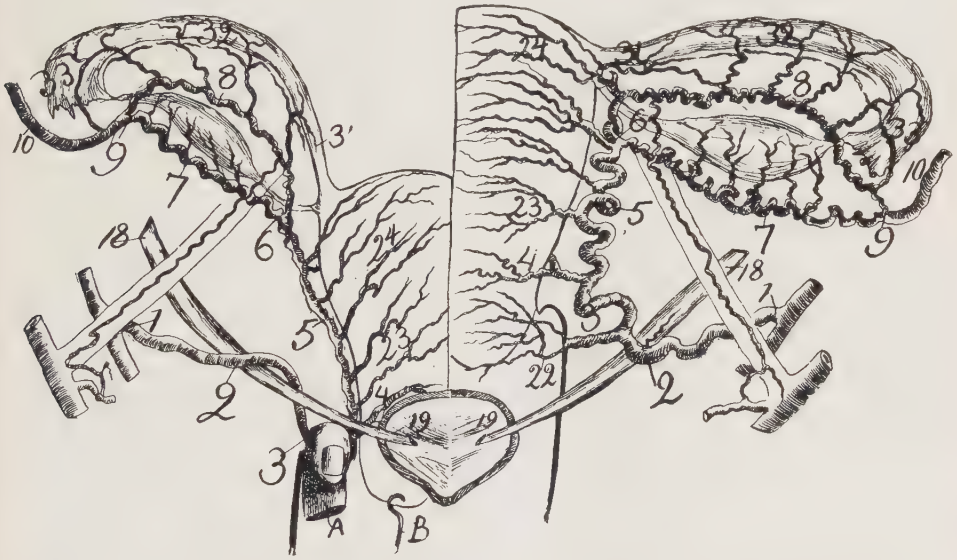

FIG. 6.—A CUT TO ILLUSTRATE THE LATERAL CERVICAL TRIANGLE REVERSED DURING OPERATION BY DRAWING THE CERVICAL LOOP DISTALWARD (2, 3, 4).

The cervical loop (2, 3, 4). The lateral cervical triangle (2, 19; 2, 3, 4; 4, 19). 1, origin of pelvic floor segment; 2, distal arterio-ureteral crossing (also arterio-ureteral loop and distal arteria ureterica; 3, cervical loop; 4, internal os; 5, uterine segment; 6, middle bifurcation of the utero-ovarian artery); 7, ramus ovarii; 8, ramus oviductus; 9, junction of oviducal and ovarian segments (also proximal bifurcation of utero-ovarian artery); 10, ovarian segment; 19, vesicle orifice of ureter; 22, ramus cervicis; 23, ramus corporis; 24, rami fundi; 31, 32, 33, oviduct; A, finger hooked around the cervical loop; B, traction forceps drawing the right half of the uterus distalward in the vagina. Note that the normal position of the ureters and trigone remains while the operation proceeds.

twigs to the mesometrium. The cervico-vaginal branch courses to the lateral border of the cervix, thence distalward on the vagina, dividing in several branches which pass to the anterior and posterior surfaces of the cervix, in order either to end there or to pass to the anterior and posterior vaginal walls.

In the ligamentary portion the cervical loop is accompanied by large adjacent veins which being injected obscure the artery. It is here surrounded by a resisting envelope of cellular tissue; the same as surrounds

the branches of hypogastric. It is this connective tissue condensed, difficult to dissect, which fills the space between the blades of the ligamentum latum.

The intra-ligamentary portion is crossed by the ureter. It lies in the base of the ligamentum latum.

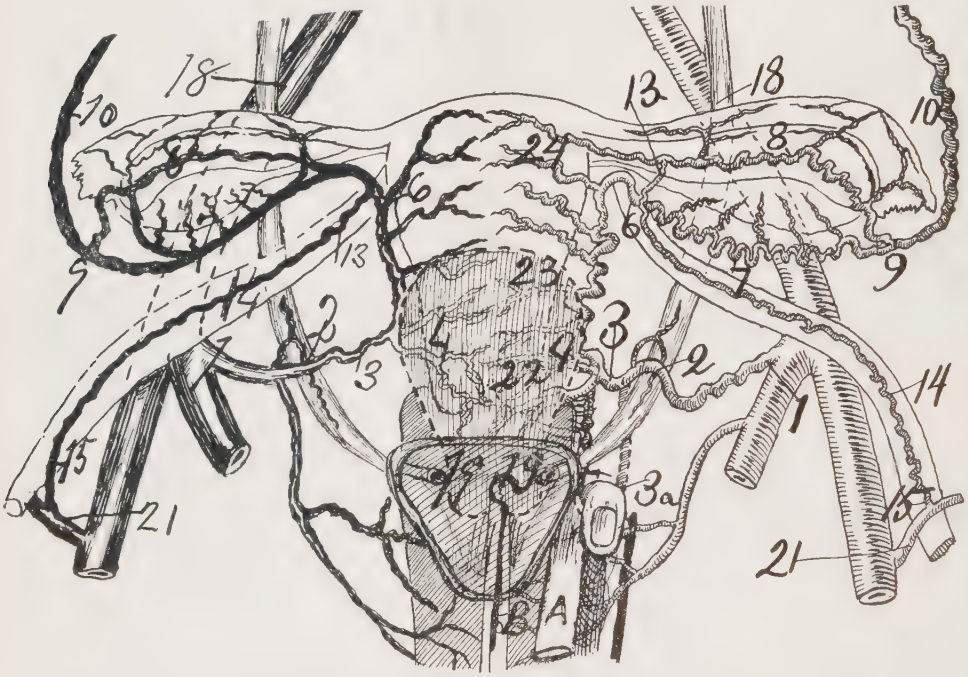

FIG. 7.—A FIGURE TO ILLUSTRATE THE CERVICAL LOOP AND LATERAL CERVICAL TRIANGLE NORMALLY AND DURING OPERATION REVERSED.

The cervical loop (2, 3, 4). The lateral cervical triangle (2, 19; 2, 3, 4; 4, 19). 1, origin of the pelvic floor segment; 2, distal arterio ureteral crossing (also arteria ureteral loop and distal arteria ureterica); 3, cervical loop; 4, internal os; 5, uterine segment; 6, middle bifurcation of the utero-ovarian artery; 7, ramii ovarii; 8, ramus oviductus; 9, junction of oviducal and ovarian segments (also proximal bifurcation of utero-ovarian artery); 10, ovarian segment; 19, vesicle orifice of ureter; 22, ramus cervicis; 23, ramus corporis; 24, rami fundi; 31, 32, 33, oviduct; A, finger hooked around the cervical loop; B, traction forceps drawing the uterus distalward into the vagina.

This cut shows the veins on one side (right) and the arteries on the other side (left). The cervical loop (2, 3, 4) normal becomes (2, 3, a, 19) reversed by drawing the uterus distalward in the vagina. Note that the normal site of the ureters and trizone remains during hysterectomy.

SUMMARY IN REGARD TO THE CERVICAL LOOP.

1. The cervical loop extends from the distal arterio-ureteral crossing to the level of the os uteri internum.
2. It is the most important of all arterial loops.
3. The cervical loop exists in a spiral or potential state, which may be unfolded or extended for physiologic, anatomic or surgical purposes.
4. Its average length in nullipara is one inch; in multipara, one and one-half inches; at three months' gestation it is over two inches.

5. In almost all adults the cervical loop or internal portion of the pelvic floor segment can be stretched or extended to two inches in length by careful force by the traction forceps and finger traction.

6. The cervical loop is the chief surgical segment of the utero-ovarian artery, and is ligated or clamped in all operations for pan-hysterectomy, except Pratt's, or that of the author.

7. The cervical loop has a descending and an ascending arm which lie mainly in contact, or may twist spirally about each other in early pregnancy.

8. The cervical loop (one inch) forms with the ureter externally (one and one-half inches) and the lateral border of the cervix and vagina to the ureteral vesicle orifice (one and one-half).

9. A uretero-arterio cervical triangle, or in short, the lateral cervical triangle, which is significant in all pan-hysterectomies as the base of this triangle, is the cervical loop which must be ligated.

10. The cervical loop is plain in dissections in hysterectomy, especially vaginal and prominent in X-rays injected with finely divided metals and starch.

11. In the first three months of gestation it appears to more than double itself.

12. The cervical loop emits the important cervico-vaginal artery, besides one large and several smaller ones to the adjacent structures and mesometrium. A vaginal may arise from it.

13. The cervical loop is flexous, and its arms may assume a corkscrew spiral. It lies in a vast loose areolar bed, allowing safe motion, sudden or gradual.

14. The length of the cervical loop in hysterectomy saves subjects from damage to the ureter by the traction forceps drawing the cervix distalward, unfolding, extending the cervical loop so that the finger can hook the loop distal to the ureter before ligating it.

15. The cervical loop changes its size, shape, length and position during age and functional relations. It passes through the quiescent phase of fetal and childhood life, the crises of puberty, menstruation, gestation puerperium and the phase of senility.

16. In nullipara it may project a short distance distal to the ureter. In multipara it may project distal to the ureter as far as the os uteri externum. At three months gestation it projects distal to the os externum uteri. In childhood and fetal life the cervical loop most frequently passes proximal to the ureter.

17. Both cervical loops bilaterally may be ligated simultaneously without gangrene (Gattschack-Martin operation).

18. In the multipara the loop generally rests against the lateral fornix; in childhood and senility it passes proximal to the vaginal fornix; in the first three monts of pregnancy it passes distal to the vaginal fornix, and almost entirely fills the space between the lateral cervical border and ureter.

Ecthol in the Treatment of the Eruptive Fevers.

Robert C. Kenner, A. M., M. D.

LOUISVILLE, KY.

Ex-President Louisville Clinical Association; Editor Third American Edition of Garrod's Materia Medica and Therapeutics; Honorary Member Muhlemberg County Medical Society.

EVERY student of disease must have had fully brought to his mind the relationship which certain diseases bear to each other. The truth is, diseases are grouped much the same as are animals and fowls or reptiles. All the eruptive fevers are related. While scarlet fever, measles and smallpox are affections entirely distinct, there is familiarity in the clinical unfolding of each of these diseases which make plain the fact that they belong to a common family and are alike in many essential particulars. We have only to take scarlet fever or measles and compare the clinical histories with smallpox, to see the great similarity or relationship, stand out in bold relief.

This clinical truth establishes a fact of causation. The fact of the similarity of these eruptive diseases in the clinical histories makes it plain that all of them are the result of a morbid state of blood, which though different is essentially alike in the way it acts upon the system. Measles, smallpox, scarlet fever, and even roseola begin usually with sore throat, bronchitis and injection of the pupils.

This proves the similarity of the morbific poison which calls the affections into being. In smallpox the tendency is to the formation of pus, while other eruptive fevers this tendency is not manifest. Still there is actively at work in all the eruptive fevers a dyscrasia of the blood which requires correction or mitigation in order that the patient may make favorable progress toward recovery. It has been the custom with many able practitioners to merely treat the untoward symptoms in the eruptive fevers and leave the morbid agent which corrupts the blood unremedied. The principle which now obtains with the advanced members of the profession is to counteract in the blood the dyscrasia which produces these symptoms. If this point in the treatment is carefully carried out we shall see less distress arising from the symptoms, and recovery will be far more speedy. This fact has been fully demonstrated by the writer and by other clinicians, who like him, have earnestly striven to mitigate the severity of eruptive fevers, and to place their treatment upon an intelligent basis.

Still the writer would not decry the employment of those drugs which merely relieve the symptoms. Some cases will urgently demand remedies to mitigate the severity of the associated conjunctivitis, pharyngitis and other usual concomitants of the eruptive fevers. Until within a comparatively short time the profession has not had an agent to correct the blood dyscrasia which produces the eruptive diseases. Ecthol is a remedy which I have employed in the treatment of smallpox, measles and other eruptive diseases with most happy results. When this agent is given with regularity from the incipiency of the disease the symptoms are light, and the patient goes on to a recovery without the complications and consequent dangers that result from the action of the morbid blood derangement.

In smallpox and scarlet fevers, the two eruptive diseases which are responsible for the greatest mortality, there has not been a single bad result where ecthol was begun early and given with regularity. The same may be said also of measles and roseola. In these diseases ecthol should be given in doses of a teaspoonful every two to four hours to an adult, according to the severity of the symptoms.

In smallpox cases it will be surprising how the disease loses its severity, and the eruption will not be so marked and the pus formation will in most cases be light and very often insignificant. I may say the same of scarlet fever. I have not had a malignant case of scarlet fever where I began with ecthol early in the disease. Ecthol by its antipurulent action and its corrective action on the blood dyscrasia mitigates the eruptive diseases and renders their course essentially mild—this expresses in a general way the action of ecthol and its scope of usefulness in these affections.

Charles P. S., age 16, came to my office complaining of general malaise, slight sore throat, injection of the conjunctiva, backache and fever. As there was a great many cases of smallpox in Louisville then I suspected this as that disease in its incipiency. I directed this patient at once to go home and take his bed. This young fellow's mother died of consumption, and while he had not been unhealthy, still he was not vigorously healthy, and all things considered, I feared he might have a serious time. I put him on ecthol in doses of a teaspoonful every four hours. Besides some other drugs to relieve prominent symptoms he took no other remedy than ecthol. This young man went along to a complete recovery without any unfavorable result. The eruption was characterized by exceedingly small pus deposits. To prevent the face from pitting a cloth saturated with ecthol was kept over the entire face and neck. I may say here that the local action of ecthol is such as will prevent pitting in smallpox cases.

Mary G. W., age 12 years. This was a girl who attends the public school. She had been exposed to measles by her desk-mate having sat by her while the fever of that disease was on her. She was delicate girl whom I had treated six months before for typhoid fever She was put on ecthol in doses of an half teaspoonful every three hours. The patient in view of the fact that she was suffering with severe headache was also given bromidia. The latter counteracted the congestion of the brain which produced headache and restlessness, and after this was accomplished the patient went on to an entire recovery without incident. A fact noticeable in this case was that after the ecthol had been given tweny-four hours all the symptoms, such as pharyngitis, conjunctivitis, etc., began to vanish.

This proves, I think, the value of ecthol in counteracting the blood dyscrasia which calls all the phenomena of the eruptive affections into being.

Mrs. Ella P., age 47. This lady had nursed several children lately who had had scarlet fever, but entertained no fear of contracting the disease, although she had never had the fever. She was now down with a well-marked attack of scarlatina anginosa. I at once began to give her ecthol in doses of a teaspoonful every three hours. Beyond some other

remedies to control symptoms this woman took nothing but ecthol. Her entire recovery was without event, and she was ill as short time a time as I ever saw a patient.

These are only a few of a great many cases of eruptive diseases treated on the principle here advocated. but they show. I think. the fitness and correctness of the treatment.

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Funds have been raised for the erection of an American hospital in Paris.

Gonorrhea; Its Dangers to Society.—Neisser (Med. News) found that the per capita percentage of gonorrhea in European armies to range from 16 to 30. Of the inhabitants of Breslau 8.7 per cent suffered from gonorrhea in 1896. Practically the same per cent was found in Copenhagen. Statistics of the disease in females are very difficult to obtain. The following circumstances make gonorrhea a serious and often dangerous disease: 1. The affection does not remain limited to the focus of infection, but extends to the higher portions of the urinary tract, to the bladder, ureter and kidney. In the male it may cause inflammation of the prostate, seminal vesicals, vas deferens and epididymus, resulting in weakness, and frequently loss of the genital functions. In the female, catarrhal inflammation of the cervix may present a mechanical hindrance to the entrance of spermatozoa. Extending to the uterus, tubes and ovaries the inflammation may cause sterility by preventing implantation of the ovum, or should pregnancy occur may cause abortion, or dangerous hemorrhage if continued to term. Fatal peritonitis may result from gonorrheal salpingitis. 2. The affection does not limit itself to the superficial mucous membrane, but may produce localized abscesses or toxic disturbances in other parts of the system. Strictures and suppuration of the Bartholinian glands are caused in this way. The gonococci may enter the blood or lymph vessels and give rise to arthritis, affections of glands or tendon sheaths, endo-and pericarditis, affections of the nervous system or special senses. Gonorrhea of the conjunctiva or of the oral or rectal mucous membrane may occur. No exact statistics can be obtained as to the frequency of complications, sequelae and metastasies. In 3699 cases in Breslau there were 1002 complications, as follows: Cystitis, 356; epididymitis, 269; prostatitis, 85; strictures, 69; Bartholitis, 67; vulvitis and vaginitis, 78; affections of the adnexa, 49, and arthritis, 29. The author agrees wih Bumm's estimate of 14 per cent of uterine and 3.6 per cent of tubal complications. The infection may exist for many months after the symptoms have subsided, and freedom from it can only be determined by a microscopical examination. There is an enormous loss of working strength and of workmen's wages caused by gonorrheal affections and large public and private expense is involved. Ten to twenty per cent of all blindness is caused by gonorrheal infection. Fifty per cent of involuntary childless marriages is due to this disease, in most cases the infection starting with the man. Williams states that 73 per cent of all abortions is due to endometritis.

The Reviewer's Table.

Books, Reprints, and Instruments for this department, should be sent to the Editors, St. Louis.

MODERN OBSTETRICS: GENERAL AND OPERATIVE. W. A. Newman Dorland, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania:; Associate in Gynecology, Philadelphia Polyclinic. Second Edition, Rewritten and greatly enlarged. Handsome octavo, 797 pages, with 201 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. (Cloth, $4.00 net.)

Dorland has won a place among practical serviceable manuals. As a text-book it is first-class, being concise, sufficiently elaborate where necessary, and always practical. In this revised edition a number of entirely new sections have been added, including chapters on the surgical treatment of puerperal sepsis, and the role of the liver in the production of puerperal eclampsia. Especial attention is given to the more recent pathology of obstetric conditions, as well as to the physiology and hygiene of pregnancy and labor; a more accurate elaboration of the mechanism of labor has been adopted. By new illustrations the text has been elucidated, and the science of modern obstetrics is presented in an instructive and eminently acceptable form.

GEORGE HENRY FOX'S TREATISE ON SMALLPOX.—A very timely treatise on smallpox to sell at $3.00 is announced for publication early in April by J. B Lippincott Company. It is written by Dr. George Henry Fox, professor of Dermatology in the College of Physicians and Surgeons, New York City, with the collaboration of Drs. S. Dana Hubbard, Sigmund Pollitzer and John H. Huddelston, all of whom are officials of the health department of New York City and have had unusual opportunities for the study and treatment of this disease during the present epidemic. The work is in atlas form, similar to Fox's Photographic Atlas of Skin Diseases, published by the same house. A strong feature of the work will be its illustrations, reproduced from recent photographs, the major portion of which will be so colored as to give a very faithful representation of typical cases of variola in the successive stages of the disease, also unusual phases of variola, vacinia, varcella and diseases with which smallpox is liable to be confounded. These illustrations number thirty-seven and will be grouped into ten colored plates, $9\frac{1}{2}$ x $10\frac{1}{4}$ inches, and six black and white photographic plates. The names of Dr. Fox and his associates assure the excellence of the work, in which will be described the symptoms, course of the disease, characteristic points of diagnosis, and most approved methods of treatment.

HELEN KELLER'S FIRST EARNINGS.—There is a pretty story in connection with the series of articles which Helen Keller, the wonderful blind girl, has written for The Ladies' Home Journal, telling about her own life from infancy to the present day. She always has shrunk from the publi-

city which follows successful literary work, and it was with great difficulty that she was persuaded to take up the task of preparing her autobiography. She had, however, set her heart on owning an island in Halifax harbor for a summer home, and in a spirit of fun the editor of The Journal offered to buy it for her, or to provide the means to buy it. When the work of writing appeared especially irksome Miss Keller was reminded of her desire to become a land-holder, and it spurred her on. Just before Christmas she completed the first chapters of her marvelous story; and on Christmas morning she received from her publishers a check for a good round sum. Her delight may be imagined, for this was the first money of any account which she had ever earned. "It is a fairy tale come true," she said. Whether she will really carry out her plan to buy the island remains to be seen.

Annals of Surgery.—These are days when St. Louis is reminding the world that numerous celebrities are her children; it is a matter of satisfaction to us that our city has been the birthplace of so many people and enterprises which have become great in the eyes of the whole world. Not all have found it necessary to leave the city of their birth in the approach of their maturity, many have found sufficient encouragement here, that the scene of their birth is the scene of their greatest vigor, and they *make* St. Louis. Among American medical journals there is none which occupies a higher scientific plane than does the Annals of Surgery, that a removal to the East was necessary to this end does not follow, but St. Louis is taking just pride in the excellence and success of this, one of the journals which she nurtured in its early days. The "Annals" deserves the dignity of the title "magazine" rather than journal, each of the twelve numbers of the year is a book of some 160 pages, presenting a mass of valuable scientific matter, from the pens of the foremost medical writers, to which the term journal does not do justice. The March number, which is just received, devotes 80 pages to the following original matter: I. Suture of the Abdominal Wall, by Charles Davison, M.D. II. Epiplopexy in Cirrhosis of the Liver with Ascites, by Gaston Terrance, M. D. III. On Splanchnoptosis and its Surgical Treatment, with report of a Case, by Henry Allison Ingalls, M.D. IV. Abdominal Contusions Associated with Rupture of the Intestine, by Homer Gage, M.D. V. Traumatic Rupture of the Mesenteric Arteries, by Charles J. Aldrich, M.D. VI. The Surgical Treatment of Some of the Remote Results of Inflammation of the Gall-bladder and Bile-Ducts, by Harry Dorr Niles, M.D. VII. An Instrument for Facilitating Intestinal Anastomosis, by Oscar H. Allis, M.D. VIII. Misapplied Mechanical Support to Weak Ankles of Children, by H. Augustus Wilson, M. D. IX. Elbow Fractures in Children. Fractures of the Lower End of the Humerus; Lesions and End Results, and their Bearing upon Treatment, by Frederick J. Cotton, M.D. Every medical man who is a reader will recognize the value of such a magazine, and will not need to be urged that it is desirable. This is a progressve age, and medical men must read if they would keep in the front. We would be glad to know that every reader of the Fortnightly was a reader of the Annals of Surgery as well.

MEDICAL MISCELLANY

MEDICAL ASSOCIATION OF MISSOURI.

Every indication points to a large and enthusiastic meeting of the State Society in St. Joseph, May 20, 21, 22. County and District Societies are reorganizing, there is a gratifying activity amongst the professon throughout the entire State. The program is rapidly filling up with papers of a high character, and those who are preparing contributions should submit their titles before April 1st, to secure a place upon the program. It is said that the program committee, as well as those in charge of the entertainment, have some pleasant surprises in store for those who attend this meeting. The railroads will make liberal concessions, as will also the hotels. The sessions will be held in the Auditorium of the Y. M. C. A. which is but a short distance from Hotel Metropole, the headquarters. Rooms should be engaged in advance as early as possible, to insure satisfactory location. A rate of $2.50 per day has been named for the occasion, and members accompanied by their ladies, will be shown special courtesies by the hotel management. Further information may be obtained by addressing the corresponding secretary, Dr. Charles Wood Fassett, St. Joseph.

THE AMERICAN ASSOCIATION OF UROLOGISTS

was organized on February 22 essentially for the purpose of further development of the study of the urinary organs and their diseases. Although most of the founders of the association are specialists in genito-urinary diseases, membership is not limited to those engaged exclusively in this specialty. Thus gynecologists who embrace renal and vesical surgery in their work are among the founders, as there are several gentlemen who devote themselves to the microscopy and chemistry of the urine, as well as a number of practitioners interested in the study of the kidney from a medical standpoint. The association consists of active, corresponding and honorary members, and is in a great measure modelled upon the plan of the Societe Francaise d' Urologie, modified to suit American circumstances and conditions. Thus, whenever possible, the branch associations throughout the United States, British Possessions, and Spanish America will hold their meetings on the same evenings as does the parent association in New York (the first Wednesday in each month). The work of the Association is principally clinical for the demonstration of new methods of the technique of examination and treatment. The annual meeting of this association will be held on the last day and the day following the annual meeting of the American Medical Association. The officers of the association are Ramon Guiteras, president; Wm. K. Otis, vice-president; John Vander Pel, Treasurer; Ferd C. Valentine, secretary; A. D. Mabie, assistant secretary.

A BILL has been introduced in the Kentucky legislature to establish an epileptic colony at the State Asylum for the Insane, at Lakeland. The bill provides for an appropriation of $75,000.

Disinfection in Smallpox.—Hess (Cleveland Jour. of Med.) found moist formalin gas to be the most effective agent. The apartments and articles to be disinfected should first be thoroughly sprinkled with a 20 per cent solution of formaldehyde; the house is then closed and completely filled with gas and allowed to remain for four or five days. Convalescent patients should be bathed in a 2½ per cent solution of formaldehyde.

Syphilis of the Nervous System, and the Use and Abuse of Mercury and Iodine in its Treatment (Liszyusky, Jour. A. M. A.).—On the discovery of a more or less remote syphilis every nervous manifestation should not be attributed to it. Even if it is definitely determined as the causative agent the prognosis is still doubtful. Early treatment does not always prevent the development of later syphilitic diseases of the nervous system. These may be inflammatory or exudative, causing endarteritis resulting in the thrombosis, or a gummatous deposit; or degenerative, involving the trophic functions and causing essentially chronic processes. Obliterative endarteritis and basal meningitis are most dangerous to life. The formation of connective tissue with destruction of nerve tissue and thrombotic endarteritis of long standing are not amenable to specific treatment. Recent exudative or inflammatory conditions are the most promising, but the result depends on the character of the infection and the susceptibility of the patient. Inunctions of mercury are recommended in conjunction with full doses of iodide.—Med. Age.

A Suggestion in the Treatment of "Bad Arm."—The present epidemic of smallpox has made itself most evident in the large number of vaccinations which have been done—the percentage of "takes" is one of the remarkable things. Giving due credit to more reliable virus than has been generally in use previously, it still seems that general conditions must be as favorable to vaccination as to smallpox. That more "bad arms" were not seen is largely due to the fact that better methods of treatment are now in vogue than were, even a year ago. The various shields, all somewhat valuable, but some remarkably so, have been a protection. Then the profession has found that the antiphlogistic method of treating the more aggravated of these arms is a success. The use of strong antiseptics has been objected to as they undoubtedly interfere with the working of the virus, but the application of a generous layer of antiphlogistine completely covering the inflamed area will speedily allay the inflammation without in any way interfering with the success of the vaccination. The dressing should be changed only when it has become dry, usually two or three applications will be sufficient. After the subsidence of all inflammation the scab, which has assumed a greyish white while kept softened by the antiphlogistine, may be allowed to take care of itself, it will follow the usual course of the normal of its kind. In the presence of antiphlogistine, inflammation and suppuration will not thrive, its many uses will be indicated by the statement. It is a success not only in minor surgery, but in some more serious conditions as well. It is also useful in epididymitis and inguinal adenitis, speedily aborting a considerable proportion of the cases where it is employed.

MEDICAL MEMORANDA.

RECTAL FEEDING AFTER ABDOMINAL OPERATIONS.

Much of the success of abdominal surgery at the present time is attributable to the great care bestowed in the preparation of the patient for operation and the after treatment. As in many instances the nutrition is more or less impaired, the question of alimentation assumes great importance in the after-management of the case. After operations upon the stomach and intestinal tract it may be, and often is, hazardous to feed the patient by mouth for some time, and rectal feeding becomes indispensable. In selecting foods for nutritive aenemas, the point to be borne in mind is that the mucus membrane of the lower portion of the intestinal canal has but little digestive power, and hence the nourishment must be presented in such form as can be easily absorbed. Another point is that the mucus membrane of the lower bowel soon becomes irritable unless the nutritive material is perfectly bland, and also in such condensed state as to leave behind no residue to decompose and act as an irritant. Physiological experiments show that when albuminous material is transformed into albumoses it is absorbed almost immediately without requiring any preliminary digestion, and after being taken up into the circulation is rapidly reconverted into serum albumin. For this reason the observations of Dr. J. E. Herrick, of Chicago (Chicago Medical Recorder) and of Dr. L. H. Watson, of Chicago, (Medical Review of Reviews) somatose, which is a pure preparation of Albumoses, is an excellent nutrient for this purpose. It may be administered alone in solution or in connection with other foods, such as milk and white of egg. In the official report of the case of the late President McKinley (American Journal of the Medical Sciences, it is stated that somatose was utilized in a saline solution in amounts of one drachm at a time. In the article on rectal alimentation referred to, Dr. Watson recommends that the bowels should be emptied by a preliminary laxative or cleansing injection before administering the nutritive enema. The enema should be given at regular intervals through a soft rubber tube, and should be inserted rather high in the rectum. The amount should not exceed four or five ounces. As soon as the gastric disturbances subside the patient may be given small quantities of food by mouth, gradually diminishing the number of rectal enemas.

THE VALUE OF PETROLEUM.

The medicinal value of Petroleum has been known so long that the date of its first use is lost in the mists of antiquity. In the form of kerosene, petroleum is used a great deal, particularly by people in the lower walks of life, as a cure for croup and whooping cough. Of course, a crude oil such as kerosene should never be taken internally, for the reason that it is tonic, and, what is more, likely to contain active poisons. Thoroughly purified petroleum is, however, a most valuable medicine, and is found in its highest development in terraline, which contains in the highest degree of purity all the physiological properties of petroleum. The petroleum itself is carefully selected from the best wells, and every step of the preparation of this medicine is attended with the most scrupulous precaution. As a result we have a petroleum preparation which is absolutely pure, tasteless and odorless. It is of high merit as a stimulator of the processes of nutrition, and is indicated in all diseases involving the throat and lungs.

TREATMENT IN BRIGHT'S DISEASE.

Beneficial results are obtained in Bright's disease, where there is a heavy waste of albumen, by the continued administration of Allouez-magnesia water taken in doses of one glassful every three hours. It soothes the inflamed kidneys, retards the waste of albumen, and destroys the tubules. Its alkaline action results in a toning up of the system. In cases of recent origin the specific gravity quickly rises to normal and the urine resumes its characteristic color. O'Keefe reports a typical case: "After continuing indicated treatment, including a milk diet, as a last resort I prescribed Allouez-magnesia water in the case of a young man suffering from Bright's disease (acute parenchymatous nephritis), and the prompt results obtained were extremely gratifying. When placed on water the kidneys were enlarged and very tender and could be seen bulging the sides and front of the abdomen. The urine was heavily loaded with albumen, tube-casts and broken-down tissue, having a specific gravity of 1,008, and excretion only amounted to six to eight ounces in twenty-four hours. The urine increased rapidly to 90 ounces in twenty-four hours with specific gravity of 1.014. The urine became clearer and in two weeks the quantity passed in twenty-

four hours decreased from 90 to 60 ounces; specific gravity became normal. Two months afterward the microscope revealed neither tube-casts nor blood and but a trace of albumen. Recovery."

BROMIDE AND IODIDE OF STRONTIUM IN BASEDOW'S DISEASE.

The bromide and iodide of strontium have fully justified Professor Laborde's high opinion of them when first experimented with by him, and they are now taking the place of the corresponding salts of potassium and sodium, and are largely ordered by the younger and more progressive physicians. They are free from untoward effects on the heart, and to not derange the stomach as the potassium salts do; they also produce more energetic efforts than salts of sodium. A. Lockhart Gillespie has recently used them with success in the treatment of Basedow's disease in children, and finds that the morbid symptoms yield to this medication without signs of iodism or bromism. Both iodide and bromide of strontium are very soluble and not more palatable than the potassium or sodium salts. The swollen condition and pulsations of the thyroid gland are very rapidly absorbed, the high pulse diminishes and the accelerated cardiac palpitations tend to disappear. As strontium can hardly be said to exist in the human economy, Dr. A. Lackhart Gillespie finds smaller doses are required than with potassium or sodium salts, and in Basedow's disease in children 12 grains of bromide and 6 of iodide of strontium, three times a day seem to be sufficiently large doses. It is of the greatest imporance that pure strontium salts be used; hence it is desirable that only the chemically pure salts made by the Paraf-Javal process be prescribed. These are the salts used in the original experiments of Dujardin-Beaumetz. Germain See, Constantine Paul, Ferry and others, and in their reports to the French Academy, special stress was laid on the importance of using these pure salts, in order to insure uniform therapeutical results, free from all danger of poisoning from the traces of the toxic barium, and sodium and potassium impurities. The standard solution of iodide, (30 grs. to the fluid ounce) bromide, (60 grs. to the fluid ounce) and lactate (60 grs. to the fluid ounce) are made only with the Paraf-Javal strontium salts, and are above suspicion.

SUBSTITUTORS CAUGHT — The substituting druggists have not all been caught or frightened out of their dishonest practice. The McArthur Hypophosphite Co., on recent investigation, found five druggists in Waterbury and five in New Haven, Conn., who put out some of the vilest preparations imaginable for McArthur's Hypophos. Lime and Soda (containing strychnia, potash, manganese, iron and citric acid). Apparently anything that happened to be at hand was used regardless of the fact that the prescriptions were plainly written Syr. Hypophos. Comp. (lime and soda) McArthur. In every case the price for the real article was charged. The only protection for the physician and the patient is for the physician to see that their patients take their prescriptions to druggists whom they know as reliable and to prescribe an original bottle wherever advisable.

DISTURBANCE OF NUTRITION is the cardinal point in the etiology of gout and rheumatism. In the transformation of products of disassimilation the liver plays a very important part; for it is here that nitrogenous bodies undergo the final change which reduces them to urea. In faulty reduction by the liver and consequent failure of the emunctories we have the basis for rational treatment of these diseases. In Tri Iodides (Henry), an alkaloidal combination of phytolaccin, solanin, colchicin and hydriodic acid, with C. P. sodium salicylate, we have an iodine alterative well borne by the stomach, without injurious by-effects, covering the entire range of the therapy of salicylates and iodines and which fulfills all the indications suggested by our knowledge of the etiology of gout and rheumatism.—Medical Essays (Henry.

It gives me great pleasure to state that my experience with Cactina Pillets has been most satisfactory in cases of rapid, irregular heart action. I find their use most successful in controlling and relieving the cardiac pains accompanying this condition.

JAMES H. CARR, M. D.
Buffalo, N. Y.

I fully regard Chionia as an excellent remedy and am highly pleased with its action in all cases of hepatic torpor and can especially laud its action in many cases of sick headache. This is the first testimonial I have given in twelve years and have absolute confidence in its physiological action.

J. B. YOUNG, M. D.
Newark, Ind.